ENVIRON

May 30, 2003

EPA Region 5 Records Ctr.
362901

Mr. Dion Novak
Superfund Division
United State Environmental Protection Agency
77 West Jackson Boulevard
Mail Code: SR-6J
Chicago, Illinois 60604

Re: Remedial Investigation/Feasibility Study
Eagle Zinc Company Site, Hillsboro, Illinois

Dear Mr. Novak:

As we discussed during our telephone conversation on May 28, 2003, based on the ground water and surface water data collected in March 2003 during Phase 2 of the Remedial Investigation (RI) at the Eagle Zinc Site, ENVIRON and the Eagle Zinc Site Parties propose the completion of additional ground water and surface water sampling in off-site areas located west of the southwestern portion of the site. If acceptable to the Agency, these supplementary data will be collected immediately following receipt of your approval and the data will be integrated with the Phase 2 data collected in March 2003 in a single comprehensive Phase 2 Technical Memorandum, as opposed to completing the work as a separate phase of the RI (e.g., Phase 3).

While this approach will require an extension to the project schedule for submission of the draft Phase 2 Technical Memorandum to the USEPA, it will have the following advantages:

- The overall duration of the RI will be significantly shorter than completing the work as a separate phase of investigation, which would require a separate Technical Memorandum, Technical Review Meeting and Agency review/comment period.
- Presenting the data with the previously collected Phase 2 data will simplify the presentation, review and discussion of the data.
- The additional data will be collected prior to the commencement of the Baseline Risk Assessment.
- The additional surface water data will be collected prior to the summer months, when there is a risk of no significant surface water flow in the western drainageway.

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Ground water and surface water data collected in March 2003 that exceed applicable screening levels are presented on Figures 1 and 2, respectively. The on-site ground water results warrant investigating whether dissolved zinc, cadmium and lead concentrations above the screening levels extend off-site in a westward direction from the southwest part of the site. The surface water results also warrant investigating whether zinc and cadmium concentrations above the screening levels extend further downstream in the Western Drainageway than the most downstream sample collected in March 2003. As such, additional off-site sampling is necessary to provide additional ground water and surface water delineation in the area west of the southwest portion of the site.

For surface water, we propose the collection of three additional off-site surface water samples, the locations of which are shown on Figure 2. One surface water sample will be collected at the same location as previous sample SW-WD-6. The second sample will be collected in the unnamed tributary of Mid-Fork East Shoal Creek, just upstream of its confluence with the drainage ditch leading from the site (background sample). The third sample will be collected at a location downstream of this confluence.

For ground water, we propose the collection of three additional off-site ground water samples, the approximate locations of which are shown on Figure 3. The ground water samples will be collected from temporary one-inch diameter PVC monitoring wells installed using a direct-push drilling apparatus (e.g., Geoprobe). The temporary monitoring wells will be installed, developed and sampled using the procedures described for monitoring well installation/sampling in the RI/FS Work Plan. The elevation of each temporary well will be surveyed. Using ground water levels measured in the temporary wells in conjunction with water levels measured concurrently in the on-site monitoring wells/piezometers, a shallow ground water contour map will be prepared, which will include the off-site area encompassed by the temporary wells.

All surface water and ground water samples will be analyzed for TAL Metals at the EnChem laboratory in Green Bay, Wisconsin. Quality assurance/quality control samples and procedures will be as described for these media in the RI/FS Work Plan. Consistent with all data collected during the RI to date, the data will be validated by Heartland ESI.

ENVIRON estimates the following durations for the tasks involved in the additional sampling program (following Agency approval):

- Obtain access to sampling locations, scheduling, mobilization to the site: 2 weeks
- Field sampling activities: 1 week
- Laboratory analysis: 3 weeks
- Data Validation: 2 weeks
- Completion and submission of comprehensive Phase 2 Technical Memorandum: 3 weeks

Based on these durations, we propose the submission of the draft Phase 2 Technical Memorandum within 90 days after your approval of this proposal. The revised

submission date will be included in the project schedule submitted with each monthly progress report. As the current submission date for the Phase 2 Technical Memorandum, June 10, 2003, is approaching, we would appreciate your timely review and response to this proposal.

ENVIRON and the Eagle Zinc Site Parties would be available to discuss this proposal with you in a telephone conference call at your earliest convenience. Please provide your availability for such a call.

If you have any questions concerning this or any other project matter, please do not hesitate to call me.

Sincerely,

ENVIRON International Corporation

F. Ross Jones

F. Ross Jones, P.G.
Manager

FRJ:als
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cc: Rick Lanham – IEPA Bureau of Land
Tim Biggs – CH2M Hill
John Ix, Esq. – Dechert
Paul Harper – Eagle-Picher
Doug Ucci – QMG; representing Eagle-Picher
Gordon Kuntz – Sherwin-Williams
Roy Ball – ENVIRON

MW-4	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Antimony	*0.006*	*0.024*	**0.01**	0.0025
Iron	*5*	*5*	**49**	0.019
Lead	*0.0075*	*0.1*	**0.93**	0.0015
Cadmium	*0.005*	*0.05*	**0.082**	0.00071
Copper	*0.65*	*0.65*	**0.95**	0.0009
Vanadium	*0.049*	*0.1*	**0.096**	0.00084
Zinc	*5*	*10*	**210**	2.3
Manganese	*0.15*	*10*	**1.4**	**0.78**
Nickel	*0.1*	*2*	**0.15**	0.0026

G-109	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Iron	*5*	*5*	**210**	0.019
Lead	*0.0075*	*0.1*	**0.15**	0.0013
Arsenic	*0.05*	*0.2*	**0.075**	0.0081
Beryllium	*0.004*	*0.5*	**0.008**	0.00061
Chromium	*0.1*	*1*	**0.17**	0.0014
Vanadium	*0.049*	*0.1*	**0.2**	0.00084
Manganese	*0.15*	*10*	**8.1**	0.016
Nickel	*0.1*	*2*	**0.23**	0.0012

MW-3	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Sulfate	*400*	*400*	**730**	NA

G-107	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Sulfate	*400*	*400*	**920**	NA
Iron	*5*	*5*	**11**	**9.5**
Lead	*0.0075*	*0.1*	**0.061**	0.0068
Cadmium	*0.005*	*0.05*	**0.061**	**0.035**
Zinc	*5*	*10*	**19**	**17**
Manganese	*0.15*	*10*	**1.1**	**1.2**

MW-10	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Iron	*5*	*0.024*	**130**	0.28
Lead	*0.0075*	*5*	**0.08**	0.0013
Arsenic	*0.05*	*0.2*	**0.058**	0.0081
Beryllium	*0.004*	*0.5*	**0.0066**	0.00061
Chromium	*0.1*	*1*	**0.16**	0.0028
Vanadium	*0.049*	*0.1*	**0.19**	0.00084
Manganese	*0.15*	*10*	**2.8**	0.014
Nickel	*0.1*	*2*	**0.14**	0.0025

MW-8	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Lead	*0.0075*	*0.1*	**0.13**	**0.018**
Cadmium	*0.005*	*0.05*	**0.031**	**0.025**
Zinc	*5*	*10*	**13**	**13**

MW-9	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Sulfate	*400*	*400*	**1,700**	NA
Manganese	*0.15*	*10*	**0.92**	**1**

MW-5	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Manganese	*0.15*	*10*	0.15	**0.17**

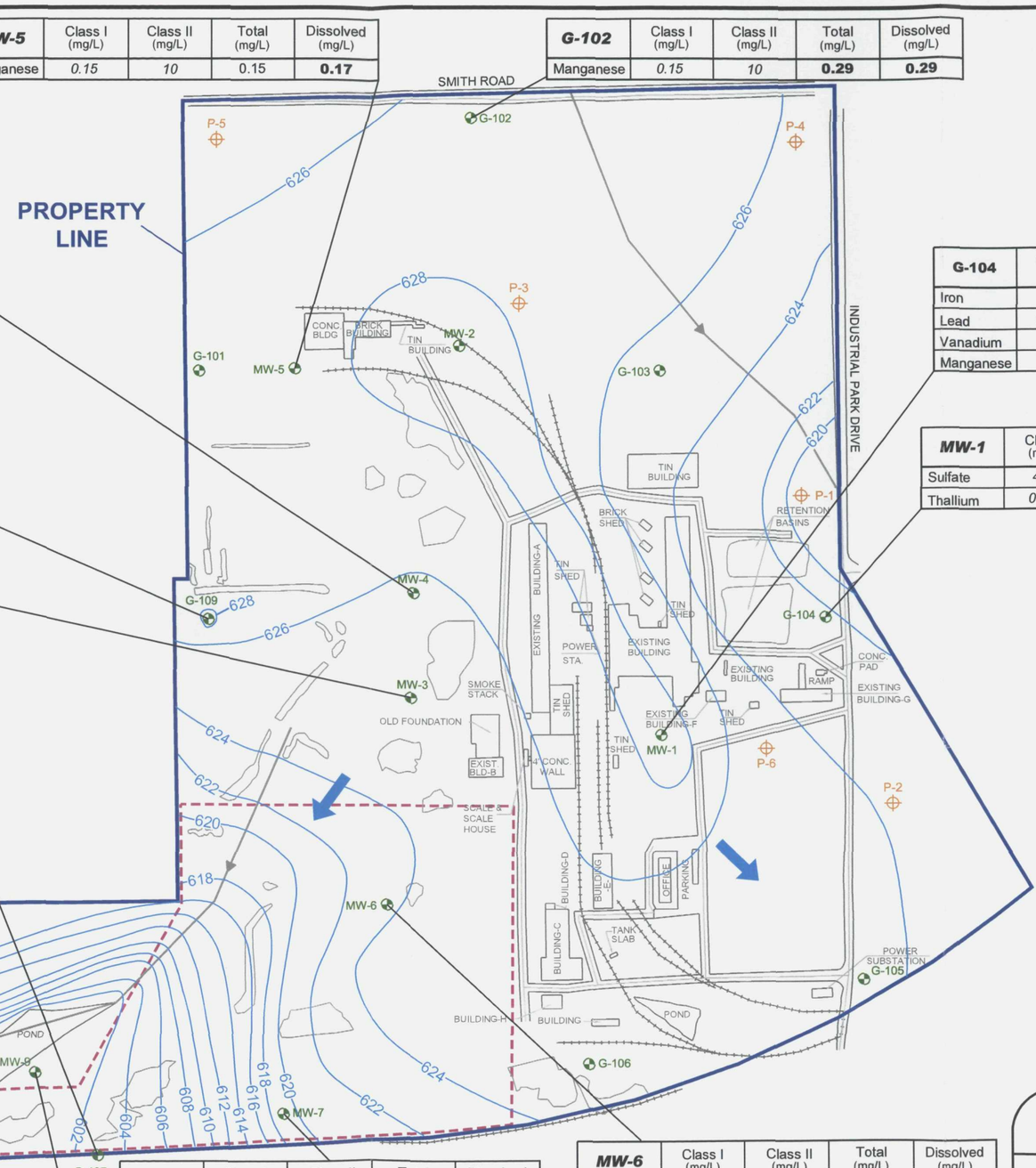
G-102	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Manganese	*0.15*	*10*	**0.29**	**0.29**

G-104	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Iron	*5*	*5*	**110**	0.019
Lead	*0.0075*	*0.1*	**0.079**	0.0013
Vanadium	*0.049*	*0.1*	**0.11**	0.00084
Manganese	*0.15*	*10*	**2.2**	0.018

MW-1	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Sulfate	*400*	*400*	**530**	NA
Thallium	*0.002*	*0.02*	**0.0043**	0.0043

MW-7	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Sulfate	*400*	*400*	**720**	NA
Thallium	*0.002*	*0.02*	0.0043	**0.0074**
Cadmium	*0.005*	*0.05*	**0.39**	**0.33**
Zinc	*5*	*10*	**120**	**120**
Manganese	*0.15*	*10*	**12**	**13**

MW-6	Class I (mg/L)	Class II (mg/L)	Total (mg/L)	Dissolved (mg/L)
Sulfate	*400*	*400*	**900**	NA
Lead	*0.0075*	*0.1*	**0.0096**	0.0013
Cadmium	*0.005*	*0.05*	**0.086**	**0.079**
Manganese	*0.15*	*10*	**0.87**	**0.94**



Legend

- Monitoring Well
- Permanent Piezometer
- —606— Ground Water Elevation Contour
- Inferred Shallow Ground Water Flow Direction
- Approximate Limits of Ground Water PAOC

Class I & Class II = Illinois Ground Water Protection Act Standards for Class I and Class II Ground Water

Note: Concentrations above Screening Levels (Illinois Ground Water Protection Act Standards for Class I Ground Water) for are shown in **bold** type.

APPROX. SCALE (ft.)
0 360

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Ground Water Sample Results
Above Screening Levels
Eagle Zinc
Hillsboro, Illinois

DATE:	CONTRACT NUMBER:		FIGURE
5/30/03	21-7400E		1
DRAFTER: APR	APPROVED:	REVISED:	

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SW-ED-11	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	1.4

SW-WD-9	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	26
Cadmium	0.05	0.230

SW-WD-PN	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	16
Cadmium	0.05	0.087

SW-ED-13	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	11

SW-WD-7	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	25

SW-WD-7D	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	26

SW-WD-10	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	3.7
Iron	2	15
Cadmium	0.05	0.058

SW-WD-6	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	15

SW-WD-PS	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	14
Cadmium	0.05	0.069

SW-WD-8	Screening Level (mg/L)	Concentration (mg/L)
Zinc	1	1.2
Iron	2	3.2

SW-ED-16

TCL SW-ED-11

TCL SW-ED-13

TCL SW-WD-9

SW-WD-7 TCL

SW-WD-PN TCL

SW-WD-PS

SW-WD-6

SW-WD-10 TCL

SW-WD-8

Gravel Pit

Hillsboro

POND

ABANDONED

Sewage Disposal

LEGEND

- Surface Water Sampling Location for Phase 2 RI
- Streams/Drainageways
- Surface Water PAOC
- Storm Water/Surface Water Flow Direction
- TCL — Sample Analyzed for TCL Organics and PCBs in Addition to TAL Metals and Sulfate
- Proposed Supplementary Phase 2 Surface Water Sample

Note: Only those constituents with concentrations above screening levels (Illinois Subpart B and Subpart D Water Quality Standards) are shown.

APPROX. SCALE (ft.)
0 700

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Proposed Supplementary Phase 2
Surface Water Sample Locations
Eagle Zinc
Hillsboro, Illinois

DATE:	CONTRACT NUMBER:		FIGURE
5/30/03	21-7400E		2
DRAFTER: APR	APPROVED:	REVISED:	

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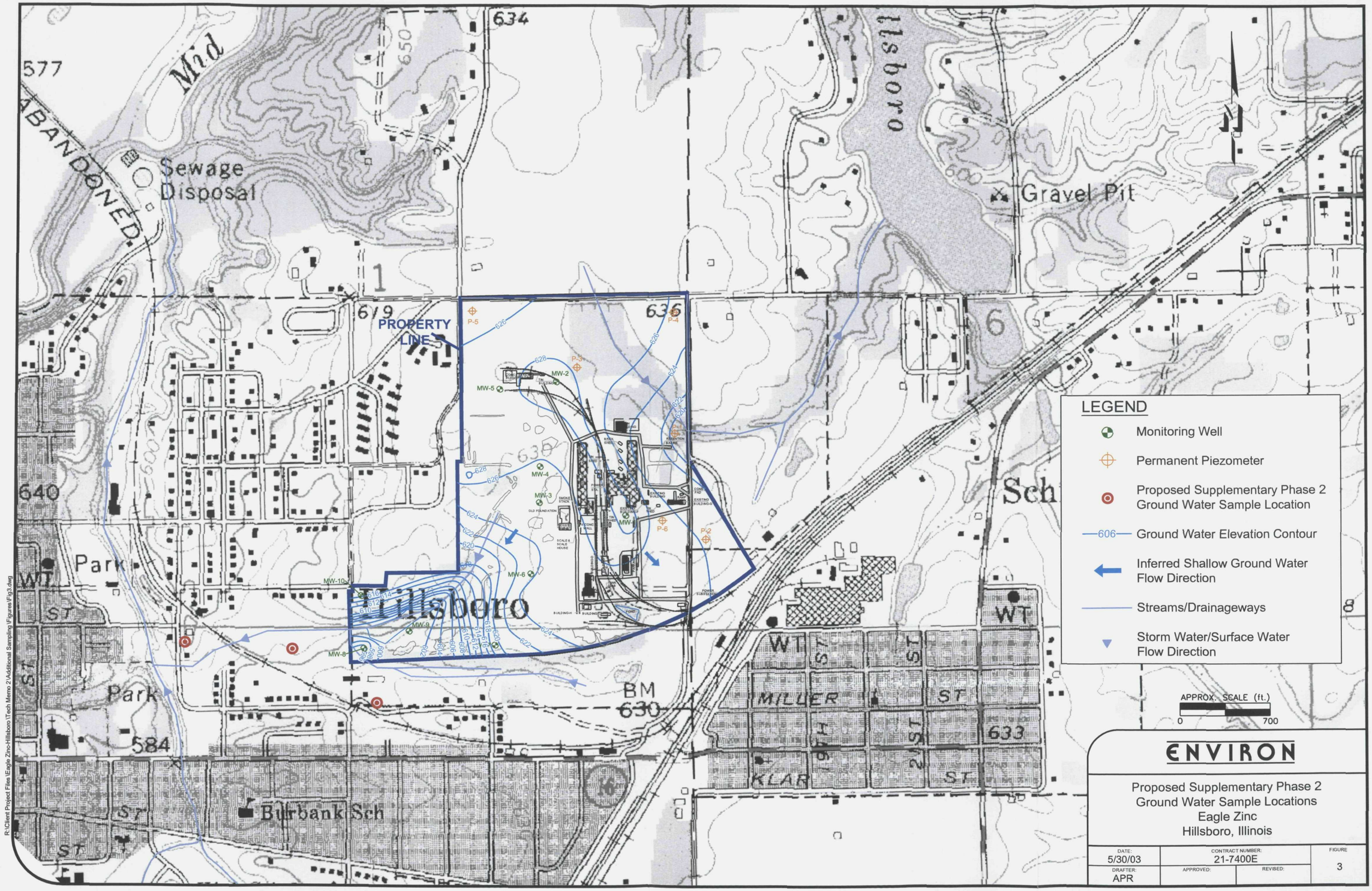

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Proposed Supplementary Phase 2
Ground Water Sample Locations
Eagle Zinc
Hillsboro, Illinois

DATE:	CONTRACT NUMBER:		FIGURE
5/30/03	21-7400E		3
DRAFTER: APR	APPROVED:	REVISED:	